

The impact of CRM (customer orientation and technology based CRM)  
implementations on call center employee's job performance:  
Evidence from Malaysia Call Centers

By

Ahmad Ibrahim Al Jumah

College of business

University Utara Malaysia

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School

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ABSTRACT

Customer Relationship Management (CRM) is a strategy used to learn more about customers' needs and behaviors in order to develop stronger relationships with them. Good customer relationships are at the heart of business success (Thomas Wailgum 2007). Nowadays, the importance of service industries growing every day through its impact on the product and the consumer. From this point, while there has been some research on job performance in call centers, there is a lack of research on this particular topic particularly Malaysia call center context. The aim of the present study is to prove that a correlation exists between job satisfaction and the levels of (customer orientation and technology based CRM). The sample consisted of 105 participants from different call centers in Malaysia. Data were collected using the job performance survey which is a self-administered questionnaire (Cleo R. Jenkins & Don A. Dillman, 1995) to measure the influence of customer orientation and technology based CRM on job performance in Malaysia call center. Furthermore, the study found a relationship between CRM dimension (customer orientation and technology based CRM) and employee job performance in call center. Moreover, the research findings indicated that the two of hypothesized positive relationship between customer orientation and technology based CRM with employee job performance. Key benefits for practitioners and academics were finally discussed under the theoretical and practical implications

## DECLARATION

I, the undersigned, hereby to declare that job performance of call center is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

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## LIST OF ABBREVIATIONS

CRM:	customer relationship management
CO:	customer orientation
TBCRM:	technology based CRM
EJP:	employee job performance
MCO:	measurement customer orientation
M TBCRM:	measurement technology based CRM
M EJP:	measurement employee job performance
EFA:	exploratory factors analysis
CFA:	confirmatory factory analysis
KMO:	Kaiser- Meyer- Olkin
VE:	variance extracted

## LIST OF APPENDEX

Appendix No	Title of appendix
Appendix A .....	Questionnaire
Appendix B .....	Frequency
Appendix C.....	Regression
Appendix D.....	Factors analysis
Appendix E .....	Reliability test
Appendix F.....	Chi square

## CHAPTER 1

### 1.0 Introduction

A wide variety of industries are seeking alternative means of operation because of the changing approaches to business and consumers' needs (Holdsworth & Cartwright, 2003). Call centers have become an integral part of most organizations today, playing a pivotal role in the service delivery chain. (Michelle, 2006) More studies on job satisfaction of call center representatives are necessary because motivated employees provide better customer service than unmotivated employees (Levin, 2004).

Nowadays employees job performance is one of the most important key of success any business especially in call center industry because many researchers consider that job performance will directly influence work productivity, trends can affect labor market behavior, work effort, staff turnover, and employee absenteeism (European Foundation for the Improvement of Living and Working Conditions, 200).

### 1.1 Background of CRM and employee job performance in call center

Some of the researchers like (Kotler & Armstrong, 2004) define CRM as “the general process of building and maintaining profitable customer relationships by delivering superior customer value and satisfaction. As we can see here these researchers focus on building profitable relation in the same time creating value to their customer. Furthermore, CRM offers great potential for improving long-term customer relationships and enhancing profitability (Rigby & Ledingham, 2004; Zikmund, McLeod & Gilbert, 2003).

(Marr & Neely, 2004, p.5). Defined call centers as a physical or virtual operation within an organization in which a managed group of people spend most of their time doing business by telephone, usually working in a computer-automated environment. A call center is a physical place where customer and other telephone calls are handled by an organization, usually with some amount of computer automation. Typically, a call center has the ability to handle a considerable volume of calls at the same time, to screen calls and forward those to someone qualified to handle them, and to log calls (Marr & Neely, 2004). Call centers are used by mail-order catalog organizations, telemarketing companies, computer product help desks, and any large organization that uses the telephone to sell or service products and services.

Actually, many salespeople are taking benefit from using CRM (Widmier, Jackson, & McCabe, 2002) in order to build long term relationships with their customers to improve sales forecasting, guide management, personalization and so on (Rigby & Ledingham, 2004). Operating at the border of the customer organization interface, salespeople in other words customer service executives are crucial to provide value for clients (Beverland, 2001) while creatively a good manner to connect between the buyer and the seller (Reynolds & Arnold, 2000). With their empowerment through telecommunications technology, many salespeople have become more like “relationship managers” (Crosby, Evans, & Cowles, 1990). Procreators (Wotruba, 1991), or “directors of customer relations” (Thorelli, 1986).

Furthermore, job performance is commonly used but still poorly defined. (Campbell, 1990) describes job performance as something a single person does and an individual

level variable. This differentiates it from more encompassing constructs such as organizational performance or national performance which are higher level variables

In addition (Campbell, 1990) showed some differences between performances and outcomes Firstly, defines performance as behavior. It is something done by the employee. This concept differentiates performance from outcomes. Outcomes are the result of an individual's performance, but they are also the result of other influences. In other words, there are more factors that determine outcomes than just an employee's behaviors and actions (Campbell, 1990).

## 1.2 Job performance

Individual performance is usually determined by some factors such as motivation, work environment, and ability. Firstly; motivation such as the willing to do the job, secondly; Work environment including the tools, equipment, information required to do the job and thirdly; Ability in other words the capability to do the job. For example if the employees those who working in call center (Maxis, Malaysia) a member of staff lacks skill, the manager can provide training or change the worker. If there is an environmental problem, the manager or director can also usually make adjustments to encourage higher performance. But if motivation is the problem, the manager's job is more difficult. Individual behavior is a complex phenomenon, and the manager may not be able to outline why the employee is not motivated and how to change the behavior.



Thus, also inspiration plays a very important role since it might negatively influence performance and because of its intangible nature.

### 1.3 Problem statement

This project sets out to examine the current problems in a service industry call center called. The telecommunication industry has one of the highest customer churn rates in the business world, often exceeding 40 percent annually (Fluss, 2009). Regarding of the retention of staff in the call center department, It is obvious that people stop work due to the fact they are dissatisfied with their jobs specially in call center that's because many of personality types of the people calling (McNally, 2007). Moreover, on a common basis the researcher aims to discover how significant job performance is in correlation to high employee attitudes towards work are detrimental to the level customer satisfaction by meeting customer wants and needs. Furthermore, some of problems are still faced by call center such as, some customer still under unconfident's to deal with call center agent because discomfort that call center could be one of the best helper to solve customer service because many people belief that agent call center is founded to serve the company business and crate money ( McNally, 2007). Furthermore, older agents, especially, can struggle with becoming adept in using the software.

## 1.4 Research questions

1. What is the relationship between customer orientation and employee job performance in call centers?
2. Is there any relationship between technology based CRM and employee job performance in call centers?

## 1.5 Research objectives

- 1 To determine the relationship between customer orientation and employee job performance in call centers.
- 2 To determine the relationship between technology base CRM and employee job performance in call centers.

## 1.6 Significance of research

The significance of this study stems the fact that most of the previous research done about employee job performance in call center while the most previous studies focused on customer's satisfaction. In fact that customer satisfaction can't be achieved without employee job satisfaction and performance in long term relation. According to Moshavi & Terborg (2002) customer satisfaction is dependent on the level of job satisfaction and motivation of the service provider.

## 1.7 Research scope

The general scope of this study is to determine the relationship between aspects of CRM component (customer orientation, and technology base CRM) and employee job performance in call center. Actually our target respondents in this research are the employees of call center in Malaysia especially Maxis's employees because, basically, Maxis providing call center services to their customers in the same time have many employees working in call center and using high technology in order to take advantage of CRM application.

## 1.8 Organization of the research

This study is divided into five chapters. Chapter one highlights the background of the study, problem statement, research questions, research objectives, significant of research, research scope and organizing of research.

Chapter two presents the previous studies about the CRM with employee job performance in this study. Based on literature review, theoretical framework of the CRM with employee job performance and several hypotheses are formulated.

Chapter three focuses on the methodology used in the current study and discusses the research design, variables and measurement, data collection technique and data analysis technique. Chapter four will present the result of the statistical and analysis. Finally Chapter five present the discussion, conclusion and the implications of the study.

## CHAPTER 2

### Literature review

#### 2.1 Introduction

Chapter two comprises of the review of relevant literatures on the origin and evolution of CRM and types of CRM, call center, what benefit can CRM offer to call center sector. Furthermore, chapter two includes, Key requirement for CRM success in contact center, Relationship between employee satisfaction and customer satisfaction, technology based CRM, and related underlying theories of CRM and employee job performance theory and finally, followed by a detailed explanation of CRM dimension (customer orientation, and technology base CRM).

#### 2.2 History and evolution of customer relationship management

Customer Relationship Management (CRM) is a concept that offers to business many benefits on the long term. In the 1990's companies started using CRM for a number of reasons. Large organizations on the long used this method to handle all the large data and interact with customers. Actually large companies were using huge amounts of data related to their customers and it was difficult to Access to all their customers and knows their purchases, because the processing was too difficult. In addition they needed something that updated the data frequently. But CRM only proved successful for long term results. The use for short term purposes was not successful because it just ended up making the process more costly and hard.

Customer relationship management (CRM ) just one area of marketing that is said to have derived its roots from technology of sales computerization and call center operations in organization activities since mid-1990s (Yue et.al., 2010; David & wendy ,2009, Aiee, 2007; McNally, 2007; Richard, 2007; Soon, 2007; Sin et al., 2005). Besides, that CRM is a part of a larger marketing management which is the art and science of choosing target markets and structuring profitable relationship with them by delivering greater customer value and satisfaction (Dean, 2007; Eid, 2007; Adam & Michael, 2005; Kotler & Armstrong, 2004; Gummesson, 2004 & Stead, 2001). Furthermore, many researchers still belief that CRM are nothing more than simple software. While others say it is a modern means of providing customer requirement at profit (Soon 2007; Nguyen et al., 2007; Eric et al., 2006). At the same time different researchers believed that there is no one correct description of CRM, this research would like to define CRM as “organization’s ability to efficiently integrate client’s factors, people, process, and technology in maximizing positive relationships with both current and potential customer (Abdullateef, A. O., Mohd, S. S. & Yusoff, R. Z., 2010).

### 2.3 CRM Today

Even though CRM systems weren't available yet, the 1980's were a foundation for CRM software. The concept in vogue at that time was 'Database Marketing'- an earlier version of CRM. It was simply a phrase used to define the act of customer service groups speaking individually to customers. While in the 1990's, this marketing system was instilled with a number of new techniques. That was when Customer Relationship Management was introduced. It now became a dual system, but now the customer got

back more than just product satisfaction. Companies began giving gifts, discounts, deals and even money. This was done to instill a sense of loyalty in the customer and Today CRM is being used in several ways. The CRM software doesn't just collect information into a static database for future reference but it's also updates the analysis of customer requirements and behavior (Cyma Khan, 2008). Furthermore, CRM as well helped building up strategies for creating more proficient ways to link different departments in the organization throughout shared data in order to lead to an enhancing and increasing customer satisfaction (See Figure 2.1). The figure shows stages of the evolution of CRM. At last there are three major divisions that establish CRM are the telecommunications, financial services providers and high tech corporations. And this software provides companies wonderful feedback in terms of customer satisfaction (Cyma Khan, 2008).



Figure 2.1 the Evolution of CRM

(The Evolution of CRM & the Challenges of Personalized E-Support)

## 2.4 Types of CRM

As mentioned above that customer relationship management (CRM) is a wide term that covers concept and terminologies that are used by companies to handle relationships with customers; which also includes activities such as capturing, storing, and analyzing customer information for better decision making (David & Wendy, 2009; Bhimrao & Janadan, 2008; Eid, 2007; Sin et al., 2005). There are three types of CRM: Operation CRM, Collaborative CRM and Analytical CRM

- ❖ Operation CRM deals with providing complete front office support to sales, marketing and similar services. (Mishra & Deepti, 2009). The operational application of CRM enables efficient communication with customers. For this reason many tools are used. These contact management tools help to decrease costs by enhanced process efficiency and use of media based communication channels.
- ❖ Collaborative CRM is straight lines communicate with customers without addition of any sales or service representatives. The different departments of company like the sales, technical support, and marketing, share the information they gather about customers. The purpose is to improve the quality of customer service and increase customer loyalty. Furthermore, it allows the company to organize and manage efficient, productive relations with customers, prospects, partners, and internal associates across all communication channels. (Mishra & Deepti, 2009).
- ❖ Analytical CRM is to discover customer data for a huge range of reasons and functions. The data collected in operational management is analyzed to segment customers. The

valuable information therefore obtained is used to make happy customers. Analytical CRM is composed of, pattern discovery component, product and customer analysis component, multitude component, sorting and customer fractionation component and customer value assessment component. Analytical solutions provided for most companies are integrated view of customer across all channels and applications, campaign performance analysis, customer profitability analysis, cross-selling and up selling( Mishra, Deepti, 2009).

## 2.5 The relationship between job satisfaction and job performance

The relationship between job satisfaction and performance is still not really defined. It would be unwise to believe that high job satisfaction leads to high performance, or that high performers are satisfied with their jobs (Euske et al., 1980). Numerals of studies refer a weak link (Petty et al., 1984; Iaffaldano & Muchinsky, 1985) while others (Caldwell & O'Reilly, 1990; & Spector, 1997) suggest a potential relationship between satisfaction and performance. The reason and result determinants are still unclear and it cannot be unspecified that satisfaction leads to high performance, or that high performers are necessarily satisfied with their jobs (Euske et al., 1980). However, a variety of studies suggest that research has found only a limited relationship between satisfaction and work output and offer scant comfort to those seeking to confirm that a satisfied worker is also a productive one (Buchanan, 2006). The study suggests that it is primarily in the realm of job design, where opportunity resides for a constructive improvement of the worker's satisfaction level. Moreover, job satisfaction is considered



a strong interpreter of overall individual well-being (Diaz-Serrano & Cabral Vieira, 2005), as well as a good predictor of intentions or decisions of employees to leave a job (Gazioglu & Tansel, 2002).

## 2.6 Call centers

A call center is a physical place where customer and other telephone calls are handled by an organization, usually with some amount of computer automation. Typically, a call center has the ability to handle a considerable volume of calls at the same time, to screen calls and forward them to someone qualified to handle them, and to log calls. Call centers are used by mail-order catalog organizations, telemarketing companies, computer product help desks, and any large organization that uses the telephone to sell or service products and services. Basically, Call center helps in automating the operations of inbound and outbound calls generated between company and its customers (Rose, 2008). These Systems are helpful in high number segments like banking, telecom and hospitality. Today, more innovative channels of interacting with customers are emerging as a result of new technology, such as global telephone based call centers and the Internet. Companies are now focusing to suggest solutions that influence the internet in building complete CRM systems allowing them to handle customer interactions in all forms.

### 2.6.1 What benefits can CRM offer the Call Center Sector?

Call center CRM software benefits the call center through its provision and storage of valuable customer data, increased automation, visible reduction in call center costs and

its potential to improve customer service levels thereby increasing productivity and ensuring customer satisfaction (Souravpati, 2010).

It helps in support call centers with reduction in holding time, shorter call durations, and the decrease of misrouted calls. Since the need for CRM is of extreme importance in the call center field, CRM provides the call center with a complete and accurate picture of the customer. CRM enables the appropriate and most productive usage of customer information thereby helping to build better relationships with customers.

CRM provides the call center professionals with valuable customer data providing them with information about the customer's history and before he makes a call. He is, thus, in a position to know and understand the customer preferences providing added information to the sales industry sector. It enables customer databases to be kept up to date at all times. Moreover, CRM is playing role of significant use in follow up actions. After the initial call all subsequent follow up actions are carried out. CRM enables a call center professional to look at previous call details when there is a question. Lead management is also possible as leads can be identified and assigned to specified employees. This results in a considerable reduction in main loss

CRM enables call center employees perform their duties easily and with less nervous tension on account of its user friendly attributes. Less training is required as well. CRM enables call centers to assess their client s requirements and accordingly provide them with what they actually require. CRM also enables call center professionals and managers to prepare their reports speedily and with clarity (Souravpati, 2010)

## 2.7 Key requirement for CRM success in contact center

The success of CRM initiative primarily requires the integration of every unit of the business that touches customer, specifically people, process and technology (Abdullateef et al., 2010., Richard et al., 2007) Each of these components presents its own challenges, but a company's ability to successfully integrate the three will determine CRM success or failure (David, Wendy, 2009; & Soon 2007).

### 2.7.1 People

The people element is the most important and difficult part of the contact center business given users' sensitivity to organization changes (Abdullateef et al., 2010; Richard et al., 2007; & Richard, 2007). People importance in the company is irreplaceable as every organization need the right person in the right place to run the business successfully. Different authors have argued on the importance of people in the contact center, and need to carry them along in the formulation of the change so that they don't become undesirable to such changes (Dean, 2009; & Anand, 2008) very important among the people are the representative, because they serve as the touch point between an organization and the customers (David, Wendy, 2009; & Ann et al., 1999).

### 2.7.2 Process

The process element of CRM is the most exact because inappropriate automation of the CRM business process will only speed up the sinful process. At the same time as most companies do have customer-facing business processes in place (i.e., processes that directly interface with the customer during the purchase, payment, and usage of the

company's products and services), repeatedly these business processes need to be updated or even replaced. To recognize successful process change, a company needs first to test how well existing customer-facing business processes are working. Then the company needs to restore or replace broken or no optimal process with ones that have been created and/or decided upon on the inside.

### 2.7.3 Technology

Technology refers to computing capabilities that allow a company to collect, organize, save, and use data about its customer. Technology is the enabler for CRM systems to achieve their objectives of collecting, classifying, and saving valuable data on customers. Integration technology allows organizations to develop better relationship with customers by providing a wider view of the customer behavior (Thompson et al., 2006). Thus, organizations are required to integrate IT to improve the capabilities of understanding customer behavior, develop predictive models, build effective communications with customers and respond to those customers with real time and accurate information (Chen & Popovich, 2003). For an organization to integrate IT, concepts such as data warehouse, software customization, process automation, help desk and call centers, and internet influence should be addressed (Mendoza et al., 2007). As the table 2.1 showed the relations between some of the CRM implementations activities with people, process and technology.

Table 2.1 developing the right mix of people, process, and technology.

<b>Key CRM Implementation Activities</b>	<b>Most Relevant Components</b>
Determining business requirements	People, some process
Setting up the project management team	People, some process
Integrating legacy and other needed systems	Technology
Customizing the CRM software	People, process, technology
CRM system pilot	People, technology
CRM system roll-out	People, technology
CRM system support	People, some process
Growing your CRM system	People, process, technology

<http://www.informit.com/articles/article.aspx?p=26256&seqNum=5>(Barton  
 Goldenberg, 2002)

J

## 2.8 Underpinning Theory

Although there is theoretical significance in showing that each competence in itself has a significant impact on performance, it is also in a sense an artificial exercise. In life—and particularly on the job—people exhibit these competencies in groupings, often across clusters, that allow competencies to support one another. Emotional competencies seem to operate most powerfully in synergistic groupings, with the evidence suggesting that mastery of a “critical mass” of competencies is necessary for superior performance (Boyatzis, Goleman, & Rhee, 2000).

## 2.9 Customer orientation

Customer orientation mainly is all about developing a strong customer focus (Das, 2004; Sheth et al., 2000; & merwe, 2004) and continuously delivering superior value to selected key customers (parvatiyar & sheth 2001) through personalized/ customized offerings (Dyche, 2002). Customer orientation refers to customer-centric business. This model provides a personalized customer experience that focuses on establishing healthy relationships between service providers and consumers by first identifying a customer's needs (McNally, 2007) Other researchers view about customer orientation focus on acquiring and serving customers by conducting business activities that increase customer value (Rust et al., 2004).The marketing model can be defined as a willingness to recognize and understand the consumer's needs and wants, and willingness or a flexibility to change any of the marketing mix elements, including product, to satisfy those needs and wants (Houston, 1986). Some of the organizations that have

acculturated the marketing concept work to create value with customers' needs in mind. These organizations are focusing on the achievement the acquiring and serving to their own customers by creating value in order to meet their wants and needs. Furthermore, a significant relationship was found in this study between employee satisfaction with his or her co-workers and customer orientation. (Leavitt, 1996 & Savery, 1996) showed some employees are motivated as much by intrinsic rewards (including working conditions) or extrinsic rewards (pay and benefits). Co-workers contribute greatly to working conditions. The results of this study imply that employees who enjoy the company of their co-workers are in a better position to concentrate their efforts on external customers (increased customer orientation). This is consistent with (Agho, Mueller & Price 1993) who found working with friendly people increased job performance. While (McNally, 2007) looks to the customer orientation from two factors firstly enjoyment and the second is needs and we will see how far the job performance is related with two these factors (enjoyment and needs).

According (McNally, 2007).The relationship between customer orientation and employee job performance coming from two customer perspectives (enjoyment and needs) in agents. The two dimensions of customer orientation are enjoyment (agents enjoy interacting with and servicing customers) and needs (agent beliefs about their ability to satisfy customer needs (McNally, 2007)).

The data collected from the call center and call center agents in Malaysia. For example, some of the employees who are working in agents call center like talking and speaking with and helping customers. Furthermore, other employees who like interacting with other people. (McNally, 2007) found that, in order to motivate him/herself because he

doesn't think so that many employees prefer to doing routine job without enjoy in their job and create quality value for both themselves and to their customers. According (McNally, 2007) survey found that one agent puts it briefly many employees said 'I like my work. I take pleasure in talking to the [clients]. I feel happy when I helping the customers. ' Besides that some employees likes the diversity of people she speaks to: 'I like speaking with different group on a daily basis and that's one of the perks about it. You get to talk to different people and meet new people.

A call center agent basically, depends on the person who handles incoming or outgoing customer calls for a business. Furthermore, he/she might handle support issues, customer complaints or account inquiries. Other names for a call center agent include customer service representative (CSR), telephone sales or service representative (TSR), attendant, associate, operator, account executive or team member (McNally, 2007).

Agent's beliefs that they have the capability (equipment's, tools, skills workers and so on) to satisfy customer needs and wants. For instance, the main purpose of the agents and call center is to help customer to solve their problem via making a call to call center or agent's representatives and solve their difficulties since the employee could solve the customer problem. (McNally, 2007) Directly reflect to a good impression to employees because he /she feel that they are doing an appropriate, sufficient and great job in helping other people. Furthermore, when the customer's problem looks like a very complicated, difficult and hidden problem' resolving challenging problems is satisfying employees because it keeps them thinking: some employees love the fact that it's thinking or challenging job. Meaning that, if customers' needs are met that will reflect a



very good impression to solvers (employees) then mostly that will lead to improve employee performance (McNally, 2007). I can conclude that there is a positive relationship between the customer orientation and employee job performance. In fact the call center job is difficult and challenging because of the variety and many of problems. That's because many of personality types of the people calling. In the other side, some customer still under unconfident's to deal with call center agent because discomfort that call center could be one of the best helper to solve customer service because many people belief that agent call center is founded to serve the company business and crate money (McNally, 2007).

As mentioned before the researcher believes that the employees they get the same self-satisfaction out of knowing that they've helped the customer solves his or her problem.

### 2.9.1 Customer Orientation Measurement

Market orientation is often considered to consist of three dimensions, customer focus, competitor focus, and capacity to disseminate information (Kohli, Jaworski, 1990; Narver & Slater, 1990). Customer orientation has been defined as “an employee's tendency or predisposition to meet customer needs in an on-the-job context” (Brown, Mowen, Donavan, & Licata, 2002, p. p.111). It is often conceptualized as two of the three market orientation dimensions, namely customer focus and the capacity to disseminate information. Below is table so that explains the measurement items of CO as extracted from previous studies.

Table 2.2: Customer Orientation Measurement Items

Constructs	Items	Source
Customer Orientation	1. Customer is the center of strategic planning in the firm	Abdullateef et al (2010)  Yueh et al (2010); Sin et al (2005);Yim et al (2005)
	2. The company is committed to meeting customer's needs and expectations	
	3. Customer database are frequently updated	
	4. There is frequent dissemination of customer information throughout the firm	

## 2.10 Technology based CRM

Nowadays, Technology plays the role of enabler in CRM deployment (Das, 2004) and allows firms to achieve greater customization and better service at lower cost (Sin et al., 2005). A review of academic and practitioners' literature was done to develop a comprehensive list of CRM practices. Furthermore, There are many literatures in support of accurate customer data as an important component to any successful CRM performance (McNally, 2007; Sin, et al., 2005 & Yim et al., 2005) and, taking into consideration the fact that technology is said to be playing an important task in any CRM projects via its ability to add value to a company's intelligence performance (Yueh et al., 2010; Kyootai & Kailas, 2007). Furthermore, Numerous CRM-oriented activities, such as knowledge management, cannot be optimized without using and taking the advantages from latest technology (Peppard 2000 & Vrechopoulos, 2004).

Certainly, most CRM applications obtain great advantage of technology innovations. Through their ability to gather and analyze the information on their customer, improve forecast models, professionally deliver personalized value offerings to individual customers respond with timely and effective customized communications (Peppard 2000; Vrechopoulos, 2004). With the development of sophisticated information management tools, such as database marketing, data ware housing, data mining, and push technology, companies are determined to seamlessly incorporate the latest technology into their CRM systems. For example, salespeople regularly depend on constantly updated software programs to better respond to their customers and put up enduring customer relationships (Kotler, 2004, p. 141). Actually CRM technology helps companies and their sales people collect, analyze, and distribute information for enhanced prospecting, improved communication and sales presentations, and tailored product configurations.

According to (McNally, 2007) view he determine two dimensions that affect to technology based CRM firstly functionally and the second is adeptness with job performance. In terms of using the CRM software, prior research finds variations in how people use IT at work in terms of its functionality. The specific functional uses these researchers identify are supporting decision-making as we mention before CRM now a day's using its application to help the managers to correct decision making through accurate information about their customer and production process (problem solving and decision rationalization), integrating work with others, and providing customer service.

Thus, the software is fundamental to the agents' job performance. (McNally, 2007) has did interview with some of the agents that basically using technology in its work and first agent said 'We attractive much do the whole thing on that system. ' When asked what she/ he do with the software that is not typical, second agent says, 'in fact can't think of anything that is not typical because I use it in my work and all of this is for our benefit. ' The software helps the agents be more productive: '[It] makes my phone call faster because all the information is right there in front of me. I don't have to go searching for it. ' A supervisor elaborates on how the software can help the agent be more productive.

Usually using technology regularly its helps the agents structured their work. Furthermore, helps them provide and deal with their customer by proficiently manner. In addition, It also helps them improve the service quality (both expected and extended) they provide to customers: 'This is just neat for follow up and it really does work. That's one of the key (McNally, 2007)

Another closely related construct is productivity. This can be thought of as a comparison of the amount of effectiveness that results from a certain level of cost associated with that effectiveness. In other words, effectiveness is the ratio of outputs to inputs—those inputs being effort, monetary costs, resources, etc. (Campbell, J.P., & Campbell, R.J.1988).

Utility is another related construct which is defined as the value of a particular level of performance, effectiveness, or productivity. Utilities of performance, effectiveness, and productivity are value judgments.

### 2.10.1 Measures of technology based CRM

Technology based CRM can be describe as any technology or systems that assist organizations in collecting, storing, analyzing, and sharing both current and potential customers information in ways that have greatly enhance employees ability in responding on the needs and request of the individual customers and thereby leading to better ways of attracting and retaining customers (Abdullateef et al., 2010., Yueh et al., 2010; David & Wendy., 2009; Kyootai & Kailas., 2007; Nguyen et al, 2007; Sin et al., 2005; Yim et al., 2005). Below is table so that explains the measurement items of TBCRM as extracted from previous studies.

Table 2.3: technology based CRM Measurement Items

Constructs	Items	Source
Technology Based CRM	1. Our firm has the right technical staffs to provide the required technical supports for the utilization of modern computer technology in building long term customer relationships.	Abdullateef et al (2010)
	2. Through CRM technology, our firm provides individual customer information is available at every point of customer contact.	Yueh et al (2010); Sin et al (2005); Yim et al (2005)
	3. My organization maintains a comprehensive database of our customers.	
	4. Our computer technology can help create customized offerings to our customers	
	5. In our firm, IT has been facilitating the management of customer relationships	

### 2.11. Job performance

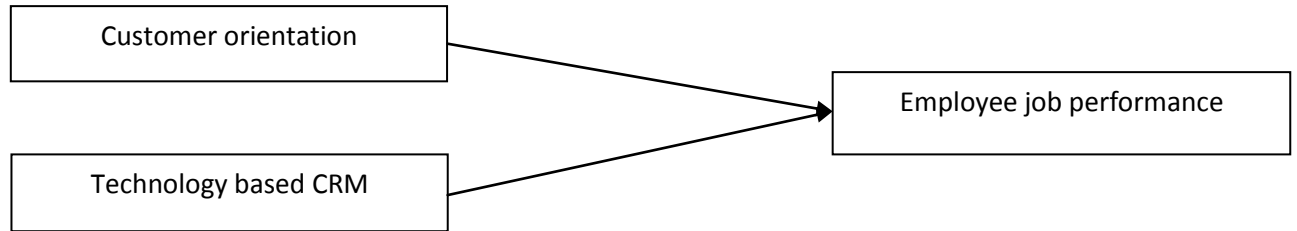
Performance is a term to describe performance level, and it is defined as an employee to finish a job in the incentive theory (Gray & Smeltzer, 1993). In addition, job performance refers that the quality and quantity of individual and group performance to complete a company's mission (Schermerhorn, 1999). Briefly to say, job performance represents an individual contribution to the organizational goal, and any action performed on the job can be measured and evaluated. While three items here because my reliability analysis indicated that i have 3 items measuring this construct

Table 2.4 Employee job performance measurements

Constructs	Items	Source
Employee job performance	1. their standard of job performance as measured by self that ranged from "does not meet standard" valued as a "1" to exceeds standard value as a "5"	Motowidlo & Van Scotter (1994) Li (2004)
	2. performance as compared with others of the same rank that ranged from "low level" valued as a "1" to high level value as a "5"	
	3. job contribution to the organization as compared to other members of the work unit that ranged from "less contribution" valued as a "1" to "more contribution" valued as a "5"	

Figure 2.2 Framework

### 2.12 Framework



### 2.13 Research hypotheses

Hypothesis 1: There is relationship between customer orientation and employee job performance

Hypothesis 2: There is relationship between Technology based CRM and employee job performance

## CHAPTER 3

### Research methodology

#### 3.1 Introduction

This chapter explains the methodology used in this research. Within this chapter reader can know used research design, sampling design, research instrument design, data analysis technique and determination of reliable research data. Base on explanation in this chapter, reader can get clear view regarding the research.

#### 3.2 Research design

There are three types of research such as exploratory, descriptive and causal design (Hair et al; 2007). This research is considered descriptive method or ‘descriptive study ‘. The main purpose of descriptive study is to give a clear view on the being investigate phenomena (Hair et al; 2007).

Descriptive study is suitable with the research conduct any time because the research help in giving view for future research (Sekaran, 2003). Besides that, descriptive method is the most suitable method to use in this research to gain better understanding the issue, systematically within use of structure data collection (Cavana, 2000).

#### 3.4 Quantitative method

In this quantitative research method is aim to determine the relationship between customer orientation, technology based CRM and employee job performance in a



population. Quantitative research designs are either descriptive or experimental. This method is chosen because the appropriate with questioner distribute to respondents.

### 3.5 Sampling design

In determining sample size, there are several factors to take into account including time factor, accuracy prediction and fit level (Hair et al; 2007). Population for the research is the total of employees of call center in Maxis. Because of large total on population, numbers of sample representing population are difficult to organize.

Furthermore, based on (Hair et al; 2007), number of sample actually not representing accurate result in the research. In this research, researchers is using convenient sample method (Hair et al; 2007; & Sekaran, 2003). Base on the selected method, employees in maxis population are from different group or heterogeneous. Examples for the method are base on ethnic, race, company, business unit and group of student. Respondent are selected randomly from call centers employees. Furthermore, some of the challenges met through distributing the questionnaires to employees for examples, some of employees reject to do the questionnaire because considered answer some questionnaire is part of the disclosure secrets of the work, others excuse because he /she don't have enough time to answer the questions, in addition, and some employees' looks to questionnaire as useless no value for the survey.

### 3.6 Research instrument design

Based on the quantitative research method, the research instrument through set of questionnaire. This is suitable method because of respondent limited location at certain

area only. Furthermore, researcher can collect the data at that area in a short time (Sekaran, 2003). Type of questioner used is base on self-administrated (Sekaran, 2003). This way help researcher to have chance to get accurate information because the respondent can ask question directly if they hesitant toward distributed questionnaire

### 3.7 Questionnaire

There are two types of questionnaire; open ended and close- ended. Researcher chooses to do the research in close –ended question. By using this method, respondents have to answer set of questions regarding CRM conceptualization with employee job performance. Questionnaire instrument already modified from questionnaire series, the index of employee job performance this index is including some part such demographic, questions on CRM conceptualization with employee job satisfaction.

## CHAPTER 4

### Data Analysis and Findings

#### 4.1 Introduction

The main objective of this chapter is to analyze the data that were collected at the quantitative explanatory stage through questionnaire. It specially presents key results from survey response analysis, respondent's profiles, data screening and preliminary analysis, measures of validity, reliability and regression analysis.

#### 4.2 Analysis of Survey Response

##### 4.2.1 Response Rate

For compliance with data collection requirement 200 questionnaires were distributed to call center employees in Malaysia via convenience sampling using hand delivery and web survey. This type of data collection method is consistent with existing industry literatures such as (Abdullateef et al., 2010 & Yim et al., 2005) only 105 questionnaires were returned.

#### 4.3 Profile of respondents

Table below shows summary profile of the respondents, their firm structure and demographic information about the respondents in table 4.1. A look at the table has indicate that the number of respondents from male gender represent (58.1%) as against the female that represents only (41.9%) this figure is very common within the call center

industry where working hours might be sometimes inconvenient for female (Abdullateef et al., 2010, Roland & Werner, 2005) .

On the other side respondents who working in organization whose employee are below 100 are represented with 10.5% respondents only, organization who employee between 101 to 500 employee represent 21% means moderately respondents, while those that are working in organization between 501 and above represent 68.6%, meanwhile the large organizations are likely to be presented simply because they have ability to apply and utilize the costly CRM technology, and CRM application. Furthermore, making the employee willing to participate in the survey (Abdullateef et, 2010, & Yim et al 2005). A strongly evidence that has help in explained the over respondents were from service sector (69.5%) that because the call center provide mainly service to their customer more than manufacturing or wholesales. furthermore, most of the employee were have experience less than 5 years.

Table 4.1 Profile of the respondents

Variable	Category	Number respondent	or Percentage %
Gender	Male	61	58.1
	Female	44	41.9
Industry	Manufacturing	0	0
	Wholesaler	0	0
	Service	73	69.5
	Others	32	30.5
Revenue	Between RM100.000-900.000	32	30.5
		29	27.6
	Between RM 1M-	44	41.9

	RM900.000M RM10M and above		
No of Employee	Below 100 101-500 501 and above	11 22 72	10.5 21.0 68.6
Years of working experience	Less than 5 years Between 5- 10 years Between 10-20 years 20 years and above	86 18 1 0	81.9 17.1 1.0 0
Qualification	No certification held Primary school Certificate School Certificate/SPM Tertiary school certificate Postgraduate Degrees	9 17 28 24 27	8.6 16.2 26.7 22.9 25.7
Age	Between 18 and 35 years Between 36 and 45 years Between 46 and 55 years 55 and above	77 16 12 0	73.3 15.2 11.4 0
Position	customer care officer senior associate executive HR Associate manager Other	39 38 11 13 4	37.1 36.2 10.5 12.4 3.8

## 4.4 Frequencies analysis

### 4.4.1 Gender

Table below shows the frequency distribution for gender position. As stated previously, the total respondent for this study is 105. From the total respondents, 61 (53.5) were male, while 44 (38.6) were female.

Table 4.2: gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	61	58.1	58.1	58.1
female	44	41.9	41.9	100.0
Total	105	100.0	100.0	

### 4.4.2 Industry Sector

As we can see here the high employee rate (69.5%) working in service sector this because basically call center depend on service job more than manufacturing or wholesaler while (30.5%) from the employees in call center doing other job.

Table 4.3: industry

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Manufacturing	0	0	0	0
wholesalers	0	0	0	0
Services	73	69.5	69.5	69.5
Other	32	30.5	30.5	100.0
Total	105	100.0	100.0	

#### 4.4.3 Annual Revenue

Regarding the respondents on table below annual revenue of their organizations as the following the highest is (41.9%) the revenue is 10 million and above while other call center organization has lower than their competitors the annual revenue is (30.5.1%) the revenue is between 100.000 to 900.000 while other call center revenue (27.6%) its represent from 1 million to 9 million.

Table 4.4: revenue

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Between RM100, 000 – RM900, 000	32	30.5	30.5	30.5
Between RM 1 M – RM9, 900 000M	29	27.6	27.6	58.1
RM10M and above	44	41.9	41.9	100.0
Total	105	100.0	100.0	

#### 4.4.4 Number of Employee

By referring to the table 4.5, the majority of the respondents were working in a big organization of call center that's because (68.6%) are working in organization that have 501 and more employee while other call center have (21.0%) 101to 500 employees the rest are working in call center organization that have below 100 employees represent 10.5%

Table 4.5 employee

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Below 100	11	10.5	10.5	10.5
101- 500	22	21.0	21.0	31.4
501 or more	72	68.6	68.6	100.0
Total	105	100.0	100.0	

#### 4.4.5 Working Experience

It can be observed from the table below that most of the employee in call center that have less than 5 years working experience those represent (81.9%) from the respondents while (17.1%) they have from 5 to 10 years working experience and less than (1.0%) only those who have from 10 to 20 years working experience that's because most of the employee in call center were between 18 to 35 years fresh graduate they are willing to work in order to gain experience

Table 4.6: experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than 5 years	86	81.9	81.9	81.9
Between 5 and 10 years	18	17.1	17.1	99.0
Between 10 and 20 years	1	1.0	1.0	100.0
Total	105	100.0	100.0	



#### 4.4.6 Qualification

By referring to the table 4.7, the majority of the respondents were qualified. Those who don't have any certificate represent only (8.6%) while the majorities have School Certificate/SPM these represent (16.2%) the employee those have postgraduate they represent (26.7%) others who have Tertiary school certificate they represent (22.9%) the rest of respondent have Primary school Certificate represent (25.7%)

Table 4.7: qualifications

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No certification held	9	8.6	8.6	8.6
Primary school Certificate	17	16.2	16.2	24.8
School Certificate/SPM	28	26.7	26.7	51.4
Tertiary school certificate	24	22.9	22.9	74.3
Postgraduate Degrees	27	25.7	25.7	100.0
Total	105	100.0	100.0	

#### 4.4.7 Age

By referring to the table, the majority of respondents were between 18 to 35 years old (73.3%); follow by the respondents in the range of 36 to 45 years old (15.2%). The third lowest employees' age are between 46 to 55 (11.4%). This means that most of the employees that are working in call center between 18 to 35 because in this age the people like to take with others and sharing some idea in the same time people in this age like to build relation with other people

Table 4.8: Age

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Between 18 and 35 years	77	73.3	73.3	73.3
Between 36 and 45 years	16	15.2	15.2	88.6
Between 46 and 55 years	12	11.4	11.4	100.0
Total	105	100.0	100.0	

#### 4.4.8 Employee Position

The most of the respondents were working as customer care officer and they represent (37.1%) while (36.2%) were working as senior associate then (10.5%) were associate manager and (12.4%) were working as executive HR and the rest were only( 3.8% ) doing other job

Table 4.9: position

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid customer care officer	39	37.1	37.1	37.1
senior associate	38	36.2	36.2	73.3
executive HR	11	10.5	10.5	83.8
Associate manager	13	12.4	12.4	96.2
Other	4	3.8	3.8	100.0
Total	105	100.0	100.0	

## 4.5 Reliability Analysis

The reliability measurement was done through Cronbach's alpha test to check on internal consistency for each factor (Nun ally, 1978). It's suggested that the reliability of basic research must be about 0.7 and above (Nun ally, 1978) the measurement and the corresponding alphas of the current study were customer orientation ( $\alpha = 0.908$ ), technology based CRM ( $\alpha = 0.912$ ) and finally employee job performance ( $\alpha = 0.853$ ). This thus indicates that the selected measurement instruments for this study are all reliable. Tables 4.10, 4.11 and 4.12 presents the individuals Cronbach alphas obtained in the reliability test.

All measures obtained from 105 individuals (N=105) were subjected to reliability analysis to assess the dimensionality of the measurement scale. Only items with a high factor loading and no cross loading greater than a 0.70 were retained. Scale reliability was assessed in term of items-to-total correlation and Cronbach's alpha to determine the internal consistency of the measurement scale. Reliability, which is a type of association used to correlate a variable with itself, usually in assessing inter-rater similarity on a variable, is also discussed. Reliability is the correlation of an item, scale, or instrument with a hypothetical one which truly measures what it is supposed to measure.

### 4.5.1: Scale: Customer Orientation

Table 4.10 Reliability Statistics CO		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.908	.910	10

#### 4.5.2: Scale: Technology Based CRM

Table 4.11 Reliability Statistics TBCRM		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.912	.912	10

#### 4.5.3: Scale: Employee Job Performance

Table 4.12 Reliability Statistics EJP		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.853	.853	3

### 4.6 Descriptive Statistics

After the data have been collected and entered it is tested and the results showed in table below. The minimum and maximum value for each variable is checked to fall between 1 to 5

The mean (1.42) of gender is moderate and most of them are male because is ranged between the minimum (1) and maximum (2) and there are no big differences between the value because STD (0.496). The mean (3.30) of industry is high and most of them are service because is around 3 and there are no big differences between the value because STD (.463). The mean (2.11) of revenue is moderate and most of them are earn between RM1M – RM9, 900 000M because is ranged between the minimum (1) and maximum (3) and there are no big differences between the value because STD (.847). The mean (1.38) of age is moderate and most of them are between 18 and 35 years the minimum (1) and maximum (3) and there are no big differences between the value because STD (.685). The mean (2.58) of employee is moderate and most of them are

more than 501 and the minimum (1) and maximum (3) and there are no big differences between the value because STD (.676). The mean (1.19) of experience is moderate and most of them are Less than 5 years because is ranged between the minimum (1) and maximum (3) and there are no big differences between the value because STD (.418). The mean (3.41) of qualification is moderate and most of them are have School Certificate/SPM because is ranged between the minimum (1) and maximum (5) and there are no big differences between the value of qualification because STD (1.269). The mean (2.10) of position is moderate and most of them are caller because is ranged between the minimum (1) and maximum (5) and there are no big differences between the value because STD (1.269)

Table 4.12 descriptive statistics

	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic
gender	1	2	1.42	.496
industry	3	4	3.30	.463
revenue	1	3	2.11	.847
Age	1	3	1.38	.685
employee	1	3	2.58	.676

experience	1	3	1.19	.418
qualifications	1	5	3.41	1.269
position	1	5	2.10	1.148

#### 4.8: KMO and Bartlett's Test

The Kaiser-Mayer-Olkin measure of sampling adequacy was used to measure the adequacy of the sample for extraction of the two factors. The KMO value found (0.891) is generally considered acceptable (Kim & Mueller, 1978). The Bartlett test of sphericity was used to test the multivariate normality of the set distributions. A significance value of ( $p < 0.05$ ) indicate that the data do not produce an identity matrix or differ

Table 4.13 KMO and Bartlett's Test<sup>a</sup>

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.891
Bartlett's	Test	of Approx. Chi-Square	1614.693
Sphericity		Df	253
		Sig.	.000

a. Based on correlations

significantly from identity (George & Mallery, 2000). The analysis focusing on the sphericity of the distribution allowed us to reject the hypothesis according to which the matrix would be unitary (Chi square = 1614.693, df = 253,  $p < 0.001$ ). This result implies that the data are thus approximately multivariate normal and acceptable for factor analysis.

#### 4.7: Factors analysis

Factor analysis is a statistical process used to find relationships among many variables. This allows various inter-correlated variables to be reduced into fewer dimensions, called factors (Child, 1990). In other words, it is possible, for example, that variations in three or four observed variables mainly reflect the variations in fewer such unseen variables. Factor analysis searches for such joint variations in response to unobserved latent variables (Rummel, 1970).

Exploratory factor analysis (EFA) could be described as orderly simplification of interrelated measures. EFA, usually, has been used to explore the possible underlying factor structure of a set of observed variables without imposing a preconceived structure on the outcome (Child, 1990), whereas, Confirmatory Factor Analysis (CFA) is a statistical technique used to confirm the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. Factors from CO1 to CO10 representing factors of customer orientation, factors from TBCRM1 to TBCRM10 representing factors of Technology based CRM and factors from EJP1 to EJP3 representing factors of employee job performance.

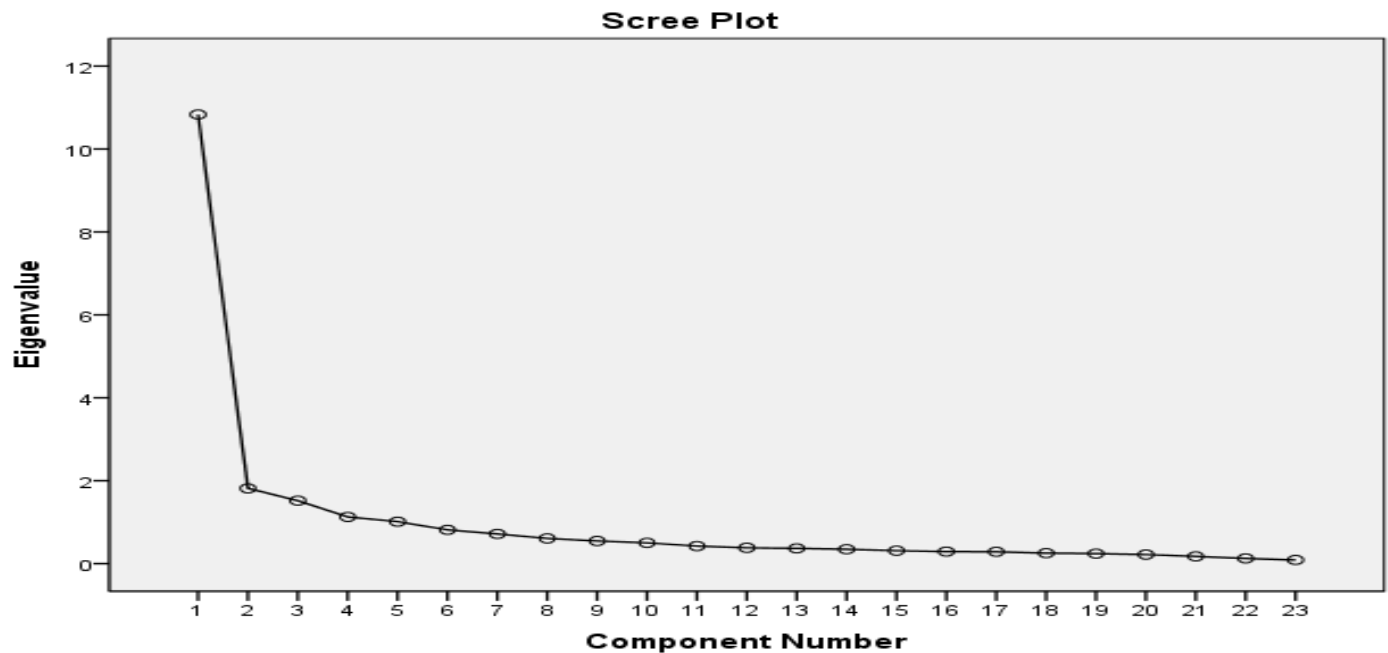
Table 4.14: Final result for customer orientation and technology based CRM

	communalities	loading
CO1	.800	.621
CO2	.735	.692

CO3	.661	.667
CO4	.623	.642
CO5	.690	.577
CO6	.576	.577
CO7	.723	.604
CO8	.634	.656
CO9	.691	.579
CO10	.674	.528
TBCRM1	.564	.602
TBCRM2	.431	.420
TBCRM3	.533	.561
TBCRM4	.657	.520
TBCRM5	.653	.641
TBCRM6	.712	.696
TBCRM7	.729	.624
TBCRM8	.739	.657
TBCRM9	.638	.594
TBCRM10	.673	.630
EJP1	.582	.684
ELP2	.650	.669
EJP3	.650	.725



Figure 3: Scree Plot



#### 4.9 Correlation

Table below provides a summary of the results from correlation analysis. The computation of the person correlation coefficient was performed to obtain an understanding of the relationship between all variables in the study. The values of the correlation coefficients we provided the table. Indicate the strength of the relationship between variable. As shown in table (4.16) overall correlation values of the variables showed correlation coefficients with value below .5. These generally indicate weak associations between variables

With regard to the relationship between employee job performance and customer orientation, the correlation is high significant at (0.626). (Cohen, 1988) suggests that if  $r$  score above .50 the correlation between the two variables are consider largely correlated. It gives an indicate why that employee job performance is one of the

variables influencing customer orientation. The relationship between employee job performance and technology based CRM, the correlation is high significant at (0.627). Concluded that all the variables correlated and have significant relationship.

Table 4.15: Correlations

		MCO	MTCRM	MEJP
MCO	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	105		
MTCRM	Pearson Correlation	.721**	1	
	Sig. (2-tailed)	.000		
	N	105	105	
MEJP	Pearson Correlation	.626**	.627**	1
	Sig. (2-tailed)	.000	.000	
	N	105	105	105

\*\*, Correlation is significant at the 0.01 level (2-tailed).

MCO: measurement customer orientation

TBCRM: measurement technology based CRM

MEJP: measurement employee job performance

#### 4.10 Regression

In order to ensure if there is relationship between customer orientation and technology based CRM with employee job performance, regression analysis was conducted to test the hypotheses. In this analysis customer orientation and technology based CRM treated as the independent variable whereas employee job performance is treated as dependent variable,. Through regressing analysis found customer orientation and technology based

CRM are regressed with employee job performance regarding the result on the table below.

Table 4.16 summary model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.675 <sup>a</sup>	.456	.446	.55287	.456	42.795	2	102	.000

a. Predictors: (Constant), MTCRM, MCO

b. Dependent Variable: MEJP

This study tests the relationship between customer orientation and technology based CRM with employee job performance. The results indicate that  $R^2 = 0.456$  that meaning around 46 % of the employee job performance will be correctly predicted by two independent variables (customer orientation and technology based CRM). Furthermore, there are others independent variables may effect of employee job performance significant level such as CRM organization, knowledge management and so on.

Table 4.17 ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.162	2	13.081	42.795	.000 <sup>a</sup>
	Residual	31.178	102	.306		
	Total	57.340	104			

a. Predictors: (Constant), MTCRM, MCO

b. Dependent Variable: MEJP

From the table above,  $F = 42.795$  with significance 0.00. This figure is less than probability 0.05, meaning that from these relatively has significant affect to employee job performance in call centers. The significant value is  $\alpha = 0.05$  for our model the result revealed that process fit.  $F \text{ change} = 42.795$  and  $p = 0.000 < 0.05$  is positively related to employee job performance. In this basis conclude that there is a positive relationship between customer orientations and technology based CRM with employee job performance.

Table 4.18 coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.745	.340		2.190	.031	.070	1.419
	MCO	.381	.111	.362	3.431	.001	.161	.601
	MTCRM	.414	.119	.366	3.474	.001	.177	.650

a. Dependent Variable: MEJP

Table 4.20 shows that results of the relationship between the customer orientation and technology CRM with employee job performance. For H1 customer orientation positively related with employee job performance. The result support this hypothesis because the coefficients is positive (0.381) and significant at level 1% ( $t = 3.431$ ) if MCO increased one unit the CRM will be increased 0.381. In the other hand, H2 technology based CRM positively related with employee job performance. The result support this hypothesis because the coefficients is positive (0.414) and significant at level 1% ( $t = 3.474$ ) if TBCRM increased one unit the CRM will be increased 0.414.

#### 4.11: Summary of findings

This chapter represents the results of the statistical analysis of the hypotheses. Furthermore, this chapter has examined the relationships between two Independent variable with the employee job performance. The result of a Pearson correlation analysis indicated that each of the variables has a positive and significant relationship with employee performance, thus providing initial support to the research hypotheses. The positive influence between combinations among all independent variable were supported.

Table 4.19: Hypothesis Testing Result

Hypotheses	Findings
H1 customer orientation positively related with employee job performance	Accept
H2 Technology based CRM positively related with employee job performance	Accept

## Chapter 5

### Discussions, Recommendations and Conclusion

#### 5.1: Introduction

This chapter will discuss and highlight the result of the research project, as well as conclude and give some recommendations for any future research.

#### 5.2: Recapitulations of result

Based on CRM model conceptualized by (Sin et al., 2005 & Yim et al., 2005) to determine the impact of CRM (customer orientation and technology based CRM ) dimension in service industry (Abdullateef et al., 2010) the purpose of this research is to determine the impact of customer orientation and technology based CRM on employee job performance . The first purpose of this research to test the model that examine the relationships between the customer orientation with employee job performance and the second purpose is to test the relationship between the technology based CRM and employee job performance.

Back to the research objectives questions has shown the study basically focus to answer to two research question namely 1- To determine the relationship between customer orientation and employee job performance in call center. 2-To determine the relationship between technology base CRM and employee job performance in call center.

As I mentioned before in chapter 4 this study collected data via questionnaire from employees in Malaysia call centers through convenience sampling. 200 questionnaires were distributed to call center employees in Malaysia via hand distribution and web survey. This type of data collection method is consistent with existing industry literatures such as (Abdullateef et al., 2010 & Yim al et., 2005). From this number, only 105 questionnaires were returned.

Subsequently the Pearson correlation was used to analyze the relationship of the variables from the independent variables and dependent variable. There is a positive relationship between customer orientation, and employee job performance. This is the first objectives and also hypotheses one of the study. The result indicated a strong significantly relationship between the customer orientation, and employee job performance and hence it supported the hypothesis one of this study. Furthermore, it supports the theories and concepts that I have discussed in previous chapters as (Vrom, 1964) proposes that people are although there is theoretical significance in showing that each competence in itself has a significant impact on performance, it is also in a sense an artificial exercise. In life—and particularly on the job—people exhibit these competencies in groupings, often across clusters, that allow competencies to support one another. Emotional competencies seem to operate most powerfully in synergistic groupings, with the evidence suggesting that mastery of a “critical mass” of competencies is necessary for superior performance (Boyatzis, Goleman, & Rhee, 2000). Regarding the results that indicate that  $R^2 = 0.456$  that meaning around 46 % of the employee job performance will be correctly predicted by two independent variables (customer orientation and technology based CRM).

In addition, t-test also showed that the positive relationship between (customer orientation and technology based CRM) and employee job performance. For H1 customer orientation positively related with employee job performance. The result support this hypothesis because the coefficients is positive (0.381) and significant at level 1% ( $t= 3.431$ ). In the other hand, H2 technology based CRM positively related with employee job performance. The result support this hypothesis because the coefficients is positive (0.414) and significant at level 1% ( $t= 3.474$ ).

The next is the relationship between technology based CRM and employee job performance, this is the second objective and also hypothesis two of this study. The Pearson correlation that was used showed a significant relationship between technologies based CRM and employee job performance.

Furthermore, the research questions advanced before were answered by the analysis conducted. The first ten questions collectively seek to find whether customer orientation and technology based CRM facets influence on employee job performance in call center. These questions were answered by the correlation analysis which showed that customer orientation and technology based CRM facets impact on employee job performance in call center.

Thus the employees of call center value customer orientation same as technology based CRM. Hence that employee performance will effect by met customer needs and wants. That's happened as mentioned in chapter two the result of (R square & t test) Reinforce that statement. For example, if employee do a sufficient, proper job and solve the customer problem that's will reflect to both the employee and the customers at the end



both employee job performance and customer orientation have a significant relationship. Furthermore, since there is a significant relationship between technology based CRM and employee job performance that's Hence, employee will perform well if they are provided by high technology with so many traits related to the different aspects of technology based CRM such as using telephone, computers, fax, internet etc. In same time the employers they will be happier within their jobs from organization they work especially from their managers. Therefore organization should be willing to continuously and regular basis, undertake employee research so as to understand what their employees expect from their current job

### 5.3: Recommendation

Based on the finding of this study, the result thus shows some implication for call centers in Malaysia, practitioners how practitioners can improve their operational process. The relationship between customer orientation, technology based CRM and employee job performance are the major determinant and factors to organization performance, hence the need for call center management to understand the relationship between CRM conceptualization with employee job performance so that could provide a good working environment. The implication for practitioners can be in the area of providing necessary concern of alerting management and governments on the need for incentives to workers. The implementation of employee's performance presents an opportunity for a performing organization to look at its existing programs, service, and process. At present, organizations and work as a whole are undergoing dramatic changes (Cooper , Jackson, 1997 & Howard, 1995) which have implications for conceptualizing and understanding performance (Ilgen & Pulakos, 1999). Ones appropriate metrics of

satisfaction identified can begin to adjust its practices and evaluate its performance over time. In addition, future researchers who are willing to do more about CRM with employee should use all the variables of CRM such as customer orientation, CRM organization, knowledge management and technology based CRM with employee job performance either in call center or any other sector.

#### 5.4 Limitation

This study had collected the data through survey questionnaire; some limitations that have met are; communication was hard in the same time the costs to distribute and collect the data were a little bit expensive, furthermore, The scope of this study is rather small and result may not significantly be applicable to other similar organizations, absolutely bigger samples or respondents will give more accurate findings, stable and more reliable base. Comparative studies on similar organization will be able to generalize the findings better. Therefore, to the limited sampling framework, another limitation is associated with the use of self-completion survey methods. Even though survey research is the most widely used approach in the world (Neuman, 2003), there are a number of problems associated with the approach. The lack of researcher control in self-completion process necessitates that the resultant data sample will not be fully representative of the population as valid respondents may choose not to complete the survey. Furthermore, respondents sometimes give expected answers or pattern responses to questions (Almumani, 2009).

## 5.5: Conclusion

Employee's performance is defined in terms of employee perception and also in terms of the likely behavioral and performance changes expected to occur through performance applications to business function of a company. These changes including customer orientation and technology based CRM, at the end, it has conclusively found answer to all research questions and research objectives and found evident to all hypotheses formulated.

The purpose of this study is to investigate the relationship between customer orientation and technology based CRM with employee job performance. By integrating these two constructs together in one framework, this study has provide some exploratory information to understand the relationship between some of CRM dimension (customer orientation and technology based CRM) with employee job performance. Findings of the study suggest that customer orientation and technology based CRM has positive influence on employee job performance.

The number of respondents is 105 employees of call center in Malaysia. It translated into reports based on customer orientation and technology based CRM, it was defined a way to deliver the information contained in the reports in a way that would be meaningful and could translate into company process improvement. Through the survey research method, data were grouped into reports appropriate to the selected audience: managers, operation, supporter staff and other. Standards were defined to report data in a valid, user friendly way, displaying information as it related to defined target goals.

The result of correlation, the regression and multiple regressions in assessing the variables or the empirical relationship between customer orientation and technology based CRM were contribute positively related to employee job performance as hypothesized. Furthermore, Empirical research supporting such theoretical development has been conducted, analyze customer orientation and technology based CRM is the scientific activities and as a combination of representing. I conclude that research findings in this study were validating the Research Objectives because there is appositive relationship between customer orientation and technology based CRM with job performance, in the same time research Questions and research Hypothesis were positive result.

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## APPENDIX

### APPENDIX A (questionnaire)



Research and Innovation  
Office College of Business  
University Utara Malaysia  
06010 Sintok, Kedah.  
Tel: 04-9283904  
Fax: 04-9285220

### **The impact of customer orientation and technology based CRM in call Center employee's job performance Malaysia**

This research is being conducted in order to better understand the link between CRM applications and customer/caller satisfaction in the contact center industry. The result of this empirical study will be used to strengthen the current CRM applications and how it could positively impact customer satisfactions in the contact center industry. Please endeavor to answer all of the questions as accurately as you can. There is no right or wrong answers; it is your opinion that is important to this study. In case you wish to comment on any questions or give more explanations to your answers, please feel free to make use of the space in the margins. Note that all information provided will be efficiently utilized. For this current study, CRM is defined as any processes, people and technologies that are implemented by any organization to efficiently manage and handle their customers' contacts at profit. In this instance, these contacts can be through a series of different types of communications channels, including the phone calls, emails, online web chatting, and faxes that are all implemented under the concept of CRM applications.

### **Thank you for your assistance**

*Ahmad Ibrahim aljumah*

*Master science management MSc*

*College of Business*

*Universiti Utara Malaysia*

*Email: [aljumah2020@gmail.com](mailto:aljumah2020@gmail.com)*

*Tel: 0175352752*



## **Part A: Background information about you and your organization**

I am a master student in science management at the College of Business University Utara Malaysia, am currently conducting a graduate research title: The impact of customer relationship management (CRM) on job performance in contact center industry, evidence from Malaysia. For ease of interpretations of the results the researcher will like to ask a few questions about you and your organization. Please endeavor to tick the appropriate box for each of the questions. Kindly note that **all information collected in this research is strictly confidential and strictly meant for academic purposes.**

### **Your gender**

Male

☐

Female

☐

### **Industry Type**

Manufacturing

☐

Wholesale

☐

Services

☐

Other

☐

### **Total number of employee:**

Below 100

☐

101- 500

☐

501 or more

☐

**Your organization's annual gross revenue:**

Between RM100, 000 – RM900, 000	<input type="checkbox"/>
Between RM1M – RM9, 900 000M	<input type="checkbox"/>
RM10M and above	<input type="checkbox"/>

**Your years working experience:**

Less than 5 years	<input type="checkbox"/>
Between 5 and 10 years	<input type="checkbox"/>
Between 10 and 20 years	<input type="checkbox"/>
Above 20 years	<input type="checkbox"/>

**Your organization's annual gross revenue:**

Between RM100, 000 – RM900, 000	<input type="checkbox"/>
Between RM1M – RM9, 900 000M	<input type="checkbox"/>
RM10M and above	<input type="checkbox"/>

**Your qualifications:**

No certification held	<input type="checkbox"/>
Primary school Certificate	<input type="checkbox"/>
School Certificate/SPM	<input type="checkbox"/>
Tertiary school certificate	<input type="checkbox"/>
Postgraduate Degrees	<input type="checkbox"/>

**Your age:**

Between 18 and 35 years

☐

Between 36 and 45 years

☐

Between 46 and 55 years

☐

Over 55 years

☐

Your Title / position

.....

.....

## **Part B: Customer Relationship Management (CRM) applications**

**Instructions:** Please answer all the questions by cycling one number that best represents your view based on the following scale:

1. Strongly Disagree
- 2 Disagree
- 3 Neutral
- 4- Agree
- 5– Strongly Agree

For any difficult terms, please kindly refer to the attached definition of terms at the end of this booklet.

### **Section A: Customer Orientation of your organization**

No.	Statements	Scale				
A1.	Customer is the center of strategic planning in our organization	1	2	3	4	5
A2.	Our organization is committed to meeting customer's needs and expectations	1	2	3	4	5
A3.	There is an established framework for getting customers feedback in our organization	1	2	3	4	5
A4.	Different processes for tracking customer's expectation are implemented in our organization	1	2	3	4	5
A5.	Customer database are frequently updated in our organization	1	2	3	4	5
A6.	There is strong Management support and commitment in using customer Knowledge in decision making process of our organization	1	2	3	4	5

A7.	There is frequent dissemination of customer information throughout our organization	1	2	3	4	5
A8.	All service standards are based on consistent analysis of customers' needs in our organization	1	2	3	4	5
A9.	Our competitive advantage is based on building and maintaining long-term customer Relationships	1	2	3	4	5
A10.	Our organization makes an effort to find out what our key customer needs	1	2	3	4	5

#### Section D: Technology Based CRM in your organization

No.	Statements	Scale				
D1.	My organization has the right technical personnel to provide technical support for the utilization of computer technology in building customer relationships.	1	2	3	4	5
D2.	My organization has the right software to serve our customers.	1	2	3	4	5
D3.	My organization has the right hardware to serve our customers.	1	2	3	4	5
D4.	Individual customer information is available at every point of contact in our organization.	1	2	3	4	5
D5.	My organization maintains a comprehensive database of our customers.	1	2	3	4	5
D6.	Our computer technology can help create customized offerings to our customers	1	2	3	4	5
D7.	Our information systems are designed to give comprehensive data about all aspects of our customers, so that we can be responsive to them	1	2	3	4	5

D8.	IT facilitates the management of customer relationships in our organization	1	2	3	4	5
D9.	My organization has the technical expertise and resources to succeed in CRM	1	2	3	4	5
D10.	We have mechanisms to encode new knowledge about our customers into formal rules or policies that can be shared between organizational participants and organizational Subunits	1	2	3	4	5

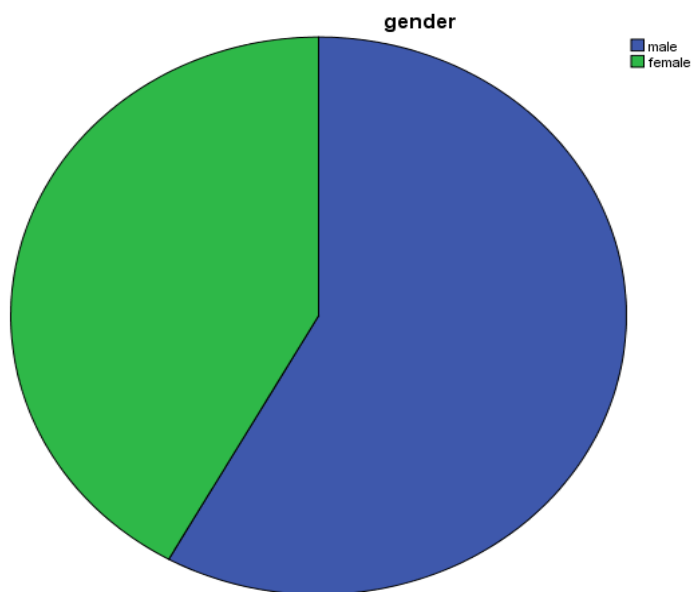
Job Performance *
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No.	Statements	Scale				
<b><i>D1</i></b>	The implementation of customer orientation and technology based CRM in my organization has positively improved my standard of job performance	<b><i>1</i></b>	<b><i>2</i></b>	<b><i>3</i></b>	<b><i>4</i></b>	<b><i>5</i></b>
<b><i>D2</i></b>	The implementation of customer orientation and technology based CRM in my organization have assisted in improving my performance as compared to other colleagues in traditional call centers	<b><i>1</i></b>	<b><i>2</i></b>	<b><i>3</i></b>	<b><i>4</i></b>	<b><i>5</i></b>
<b><i>D3</i></b>	Customer orientation and technology based CRM implementations have improved my job contribution to the company as compared to other colleagues in traditional call centers	<b><i>1</i></b>	<b><i>2</i></b>	<b><i>3</i></b>	<b><i>4</i></b>	<b><i>5</i></b>

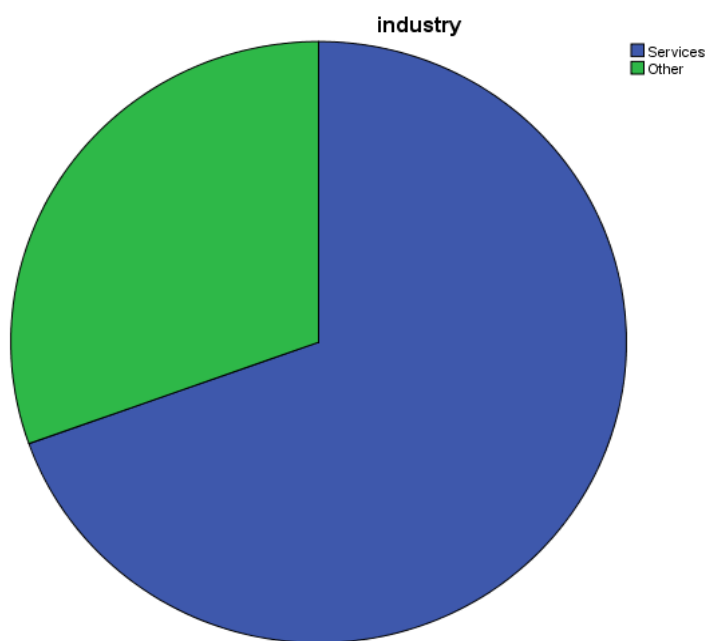
***Thank you for participating***

## Appendix B (Frequency)

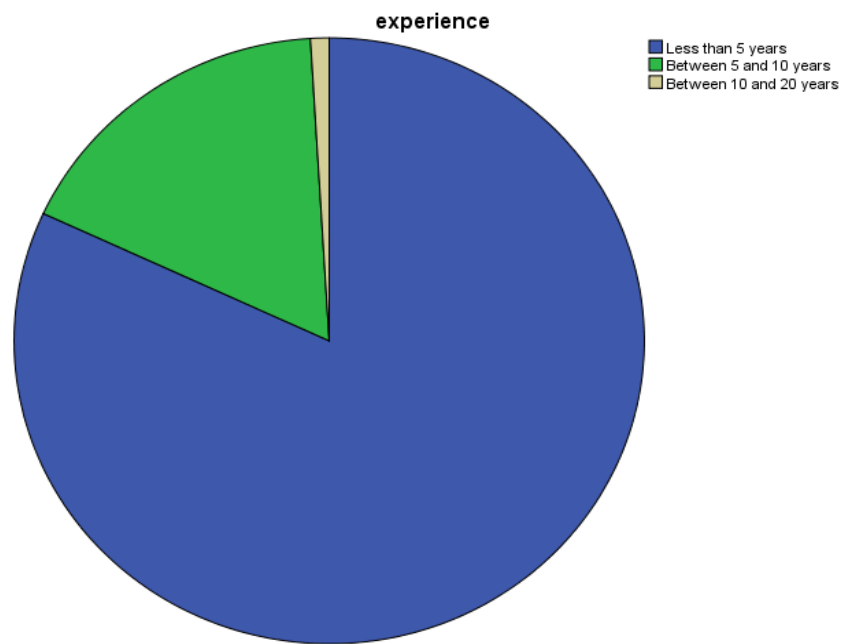
### Gender



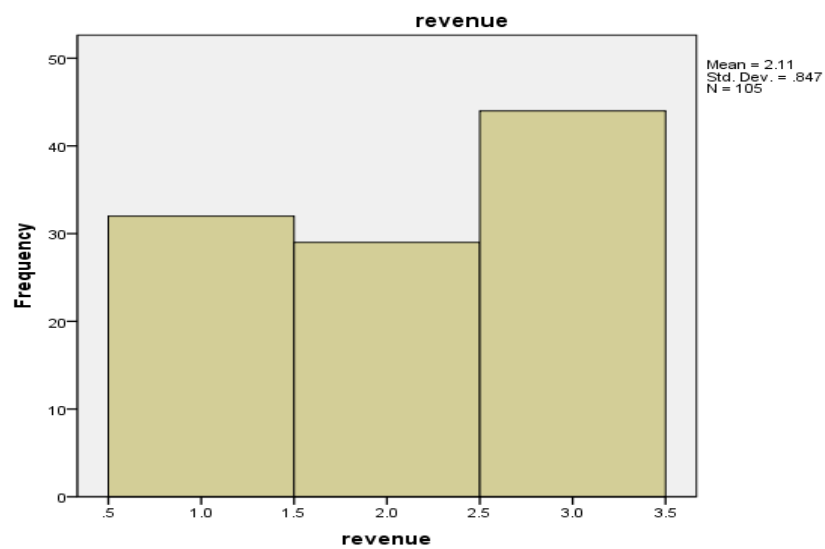
### Industry



## Experience

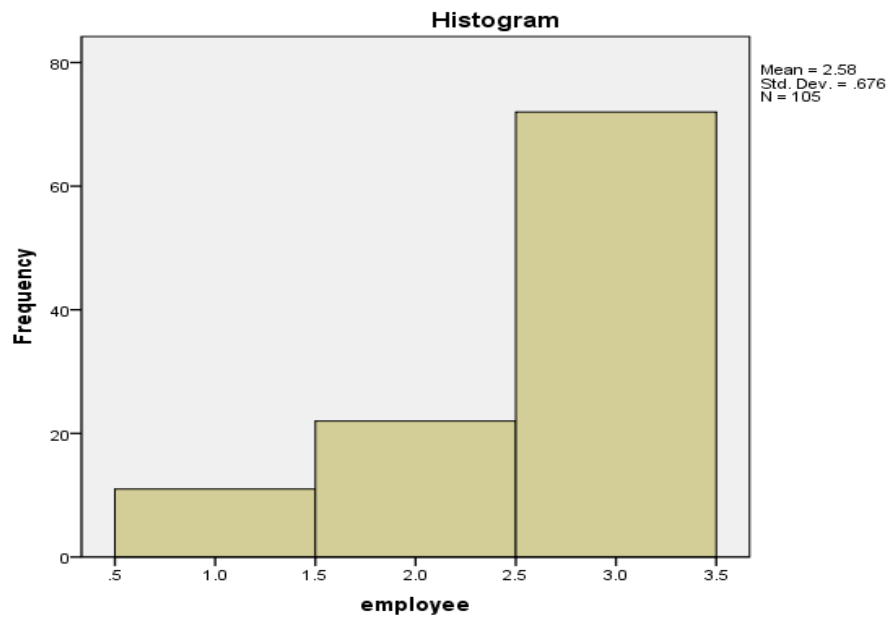


## Revenue

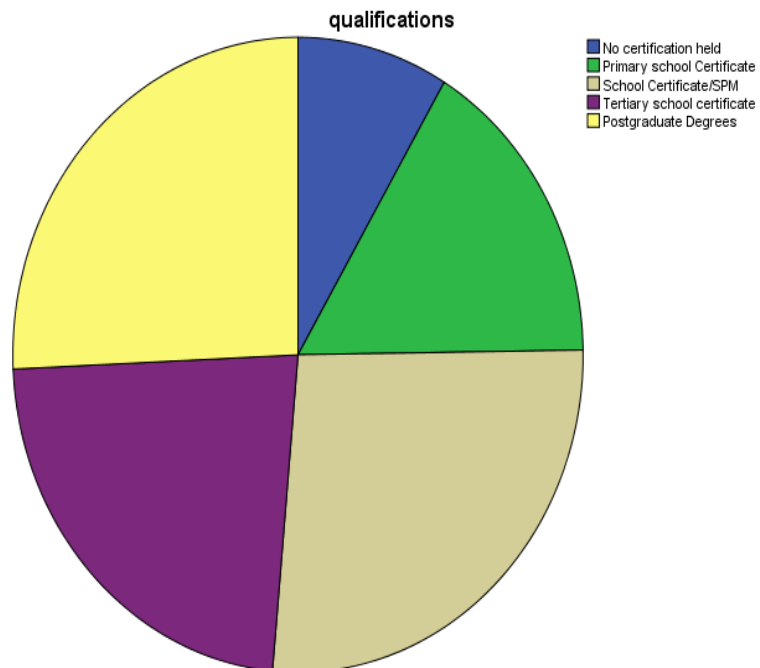




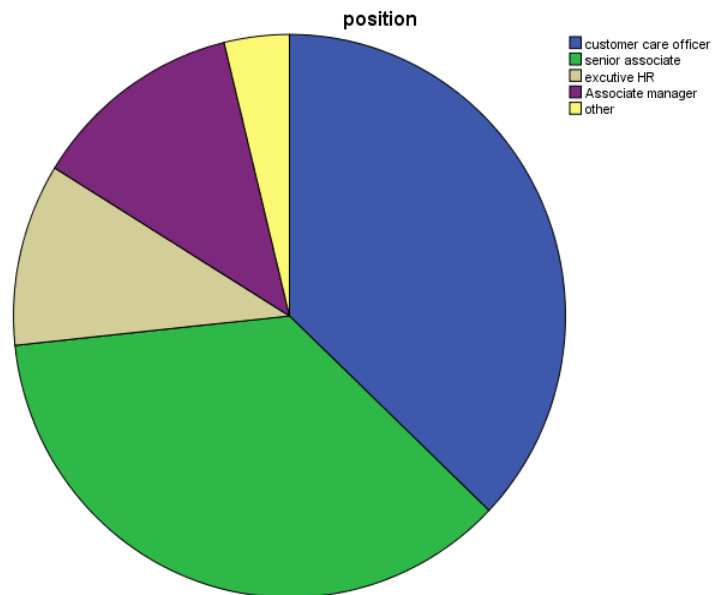
## Number of employees



## Qualifications



## Position



## Appendix C (Regression)

Correlations				
		MEJP	MCO	MTCRM
Pearson Correlation	MEJP	1.000	.626	.627
	MCO	.626	1.000	.721
	MTCRM	.627	.721	1.000
Sig. (1-tailed)	MEJP	.	.000	.000
	MCO	.000	.	.000
	MTCRM	.000	.000	.
N	MEJP	105	105	105
	MCO	105	105	105
	MTCRM	105	105	105

Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.5772	4.7168	3.8476	.50155	105
Std. Predicted Value	-4.527	1.733	.000	1.000	105
Standard Error of Predicted Value	.054	.253	.087	.033	105
Adjusted Predicted Value	1.7287	4.7051	3.8485	.49672	105
Residual	-1.16399	1.78929	.00000	.54753	105
Std. Residual	-2.105	3.236	.000	.990	105
Stud. Residual	-2.124	3.282	-.001	1.006	105
Deleted Residual	-1.18468	1.83963	-.00085	.56551	105
Stud. Deleted Residual	-2.162	3.453	.001	1.018	105
Mahal. Distance	.005	20.832	1.981	3.061	105
Cook's Distance	.000	.120	.011	.021	105
Centered Leverage Value	.000	.200	.019	.029	105

a. Dependent Variable: MEJP

Appendix D (Factors analysis)

**Descriptive Statistics**

	Mean	Std. Deviation	Analysis N	Missing N
CO1	4.05	1.041	105	0
CO2	4.17	.945	105	0
CO3	3.96	.898	105	0
CO4	3.90	.849	105	0
CO5	3.95	1.023	105	0
CO6	3.85	1.026	105	0
CO7	3.81	.889	105	0
CO8	3.99	.893	105	0
CO9	3.92	.978	105	0
CO10	4.00	.971	105	0
TBCRM1	3.93	.891	105	0
TBCRM2	3.86	.860	105	0
TBCRM3	3.75	.928	105	0
TBCRM4	3.84	.921	105	0
TBCRM5	3.94	.795	105	0
TBCRM6	3.89	.913	105	0
TBCRM7	3.82	.959	105	0
TBCRM8	3.83	.814	105	0
TBCRM9	3.80	.892	105	0
TBCRM10	3.90	.820	105	0
EJP1	3.85	.841	105	0
ELP2	3.87	.856	105	0
EJP3	3.83	.837	105	0

## Appendix E (Reliability test)

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.853	.853	3

**Inter-Item Correlation Matrix**

	EJP1	ELP2	EJP3
EJP1	1.000	.586	.659
ELP2	.586	1.000	.733
EJP3	.659	.733	1.000

**Scale Statistics**

Mean	Variance	Std. Deviation	N of Items
11.54	4.962	2.228	3

## Appendix F (Chi square)

**KMO and Bartlett's Test<sup>a</sup>**

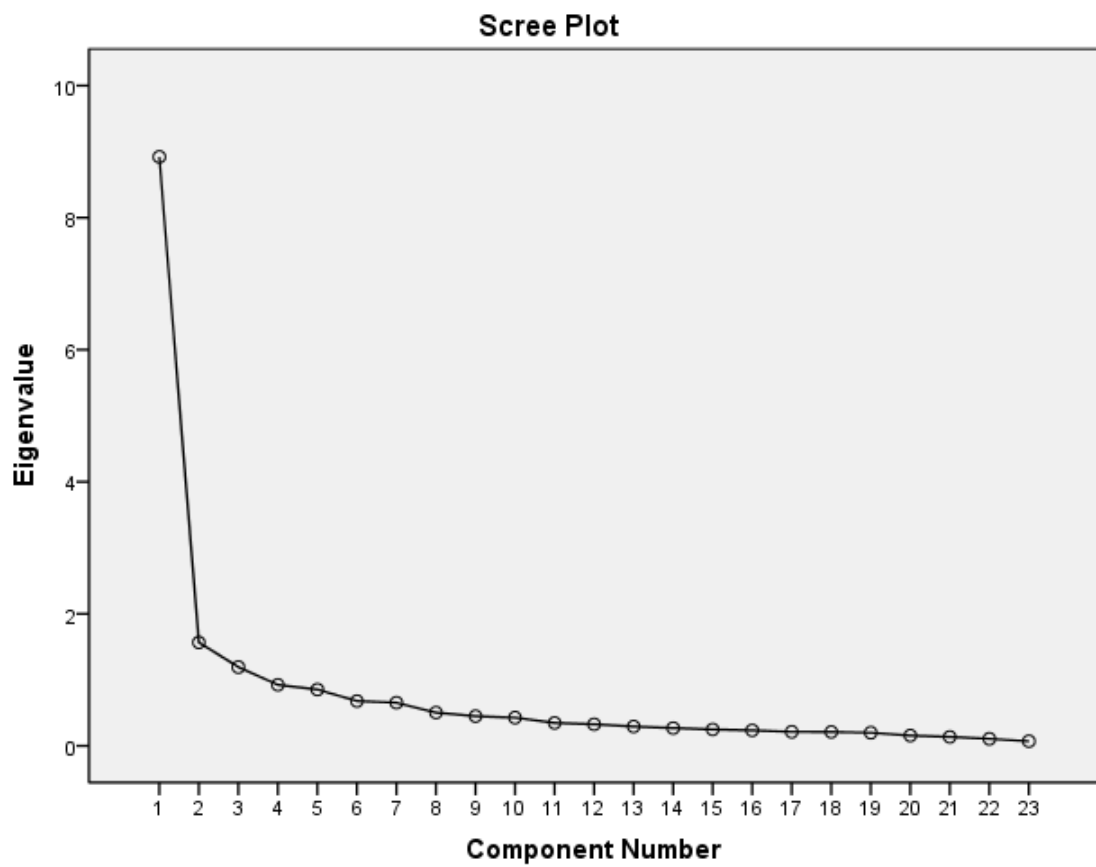
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	1614.693
	df	253
	Sig.	.000

a. Based on correlations

**Communalities**

	Raw	Rescaled
	Initial	Initial
CO1	1.084	1.000
CO2	.893	1.000
CO3	.806	1.000
CO4	.722	1.000
CO5	1.046	1.000
CO6	1.053	1.000
CO7	.790	1.000
CO8	.798	1.000
CO9	.956	1.000
CO10	.942	1.000
TBCRM1	.794	1.000
TBCRM2	.739	1.000
TBCRM3	.861	1.000
TBCRM4	.849	1.000
TBCRM5	.631	1.000
TBCRM6	.833	1.000
TBCRM7	.919	1.000
TBCRM8	.663	1.000
TBCRM9	.796	1.000
TBCRM10	.672	1.000
EJP1	.707	1.000
ELP2	.732	1.000
EJP3	.701	1.000

Extraction Method: Principal Component Analysis.



Component Transformation Matrix			
Component	1	2	3
1	.614	.628	.478
2	.682	-.119	-.721
3	.396	-.769	.502

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

**Rotated Component Matrix<sup>a</sup>**

	Raw			Rescaled		
	Component			Component		
	1	2	3	1	2	3
TBCRM8	.602			.739		
TBCRM7	.699			.729		
TBCRM6	.650	.398		.712	.436	
TBCRM10	.551			.673		
TBCRM4	.606			.657		
TBCRM5	.519	.323		.653	.406	
TBCRM9	.569			.638		
EJP1	.490		.442	.582		.526
TBCRM1	.502	.440		.564	.494	
TBCRM3	.495	.480		.533	.517	
CO7		.643			.723	
CO9		.676			.691	
CO5		.706			.690	
CO10		.654			.674	
CO8	.427	.566		.478	.634	
CO4		.529	.358		.623	.421
CO6	.468	.591		.456	.576	
TBCRM2	.345	.370		.402	.431	
CO1			.833			.800
CO2		.403	.694		.426	.735
CO3		.400	.594		.445	.661
EJP3	.379		.545	.453		.650
ELP2	.356		.556	.416		.650

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 19 iterations.